

Service Dates July 8, 1981

DEPARTMENT OF PUBLIC SERVICE REGULATION
MONTANA PUBLIC SERVICE COMMISSION

IN THE MATTER of the Application of the) UTILITY DIVISION
CITY OF BOZEMAN to Increase Water Rates) DOCKET NO. 80.10.76
and to modify Rules and Regulations.) ORDER HO. 4824

APPEARANCES

FOR THE APPLICANT:

William E. O'Leary, Attorney at Law, Arcade Building-Suite 4G, 111
North Last Chance Gulch, Helena, Montana 59601.

FOR THE INTERVENOR:

James C. Paine, Montana Consumer Counsel, 34 West 6th Avenue,
Helena, Montana 59620.

FOR THE COMMISSION:

Robert F. W. Smith, Staff Attorney

BEFORE:

JOHN B. DRISCOLL, Commissioner

HOWARD L. ELLIS, Commissioner

THOMAS J. SCHNEIDER, Commissioner

* * *

The Commission, having taken evidence and being fully advised
in the premises, makes the following findings, conclusions and
order

FINDINGS OF FACT

GENERAL

1. On October 6, 1980, the City of Bozeman (Applicant or
City), filed an application with this Commission for authority to
increase rates and charges for water service to its customers in
Bozeman, Montana. The Applicant requested an average increase of
approximately 200 percent which would result in an increase of
5794,453 in annual revenues. The Applicant also requested
modification of certain rules and regulations of the water
utility.

2. On April 1, 1981, pursuant to notice of public hearing, a hearing was held in the Community Room, County Courthouse, Bozeman, Montana. The purpose of the public hearing was to consider the merits of the Applicant's proposed water rate adjustments.

3. At the public hearing the Applicant presented the following five witnesses:

Arthur Van'T Hul, City Engineer John M. Evans, Interim City Manager Dr. Edward L. King, County Health Officer Donald Strang, Water Superintendent Tom Thomas, Consulting Engineer

These witnesses testified relative to: the need for proposed capital improvements, the estimated cost of the proposed capital improvements, the financing of the proposed capital improvements, the increases experienced in operation and maintenance expense, rate structure and the need to modify certain rules and regulations of the water utility.

4. The Montana Consumer Counsel at the public hearing presented the testimony of 17 public witnesses. The public testimony in this Docket was quite diverse; some consumers were in full agreement with the City's proposal, some acknowledged that portions of the City's proposal were justified, and others were totally against the proposal.

5. The fiscal year ending June 30, 1979 test year is found by the Commission to be a reasonable period within which to measure Applicant's utility revenues and expenses for the purpose of determining a fair and reasonable level of rates for water service.

B. CAPITAL IMPROVEMENT PROGRAM

6. The City in its application has set forth a proposed capital improvement program for the water utility. The City proposes a 3 year construction program to be funded from a Revenue Bond Issue having a term of 25 years, and from the revenues of the water utility. The City has also set out additional improvements, for Commission information, that are not included in the 3 year construction program and are not under consideration in this Docket.

7. Section A of the following table sets out the proposed improvements to the water system and the estimated cost of the improvement under consideration in this Docket. Section B lists the additional improvements that the City feels are necessary in the future but are not under consideration in this Docket.

CAPITAL IMPROVEMENT PROGRAM SECTION A

	Estimated Cost
1. Sourdough - 30" Transmission	\$1,181,500
2. 10 MGD Treatment Plant	2,036,000
3. Garfield ? 14" Trunk and 2 MG Storage	558,500
4. 12" Main on Oak from Rouse to 5th Avenue	110,000
5. 10" Main on Durston as needed between 7th and 19th Avenue	65,500
6. 24" Trunk Main from the Transmission coming into town westerly to 19th Street northerly on 19th Avenue.	807,500
7. Meters and meter structures in Bozeman Creek and Hyalite Creek diversion structures.	65,000
8. Install meters on unmetered services	125,000
9. 10" Main on Durston from 19th to 23rd and 12" on 23rd to Main	156 000
TOTAL:	\$5,105, 000

SECTION B

10. Improvement to Mystic Lake Dam	\$ 275,000
11. Purchase additional water rights	160,000

12. Separate distribution into two districts and construct 3 MG storage	\$ 575,000
13. 14" Trunk Main Highland Boulevard to Bridger Drive and Story Mill Road	670,000
TOTAL:	\$1.680,000

8. Item 1 of the proposed capital improvement program is the construction of a 30 inch transmission main between the existing 4 million gallon reservoir and the presedimentation basin where the proposed treatment plant will be located. The 30 inch transmission main will replace one that has deteriorated beyond repair and will provide additional capacity to bring water to the reservoir. The estimated cost for this improvement is \$1,181,500.

9. Item 2 of the proposed capital improvement program is the construction of a 10 million gallon per day Water Treatment Plant. The treatment plant is being constructed for two reasons: the first is that the City must comply with the Safe Drinking Water Act relative to acceptable turbidity levels for drinking water: the second reason the City proposes the construction of ; the treatment plant is to prevent any further out breaks of the disease Giardiasis (a gastro-intestinal infection) which is a public health hazard. The estimated cost for this improvement is \$2,036,000.

10. Items 3, 4, 5, 6, and 9 of the improvement program are for the construction of improvements to the City's distribution system to improve the available supply of water to various areas of the City. The estimated cost for these improvements is \$1,697,500.

11. Items 7 and 8 of the improvement program are for metering the intake of water from the City s water rights and to complete the metering of all services connected to the City water system. Both metering projects will result in a benefit to the City. The metering of the water input into the City's system will result in the City being able to determine the actual amount of water losses occurring in the system and the metering of all service connections will promote conservation of water. The estimated cost of these improvements is \$190,000.

12. The Commission finds that the capital improvement program as proposed by the City is reasonably prudent and therefore accepts the improvements as outlined. The Commission also accept the City's estimated cost of \$5,105,000 as being a reasonable estimate of the construction costs.

C. DEBT SERVICE

13. The City proposes to finance the majority of the capital improvements outlined in Section B of this order by the issuance of revenue bonds.

14. The City proposes to issue \$4, 800, 000 in revenue bonds to be repaid over a 25 year period with the requirements that City capitalize from the bond proceeds a reserve fund in an amount equal to the average annual principal and interest payment on the bonds and provide a debt service coverage of 150%.

15. The City in this case has elected to issue bonds in an amount less than the total required to finance the entire capital improvement program. The net proceeds from the bond sale that will be available to the City for capital improvement purposes is \$4,315,000--this is due to the fact that the City will be capitalizing a reserve fund in the amount of \$485,000 out of the total proceeds of \$4,800,000. This means that the City will have to generate \$790,000 in additional revenues to complete the improvements outlined in Section B of this order. It is the City's contention the additional \$790,000 would be generated by the debt service coverage and the interest from the construction fund.

16. The record contains extensive testimony relative to the City's proposed method of financing the construction of its capital improvements. The importance of this issue dictates that the Commission provide a general frame of reference for this issue, as well as discuss the specific evidence in detail.

17. The City's financial advisor, Albert T. Cook, Jr., concisely summarized the broad issues in capital improvement financing. Generally, the issuance of tax-exempt bonds to be repaid over the useful life of a public improvement is the most equitable and cost effective way to pay for such improvements. It is equitable because it permits those who benefit from the use of the improvements during the entire useful life of the improvements, in this case the users of the water system, to pay their share of the cost of the improvement. If all the system improvements were to be paid for on a pay-as-you-go- basis, rather than through a long-term bond issue, only the initial user would pay the costs of the improvement, providing a 'free ride' for later users. Issuing tax-exempt bonds is cost effective because interest rates are lower, thus reducing borrowing costs that must be paid by users of the water system. Also, since inflation reduces the value of the dollar, the loan will be paid back with "cheaper. dollars, if we continue to experience inflation.

18. In any sale of municipal bonds, the purchasers of the bonds must be assured that their investment is secure. To provide this

security, the municipality makes a promise, called a covenant, to do certain things that will ensure that it is always able to pay the bond's principal and interest as they come due. The first thing a city does is agree to an accounting procedure. It sets up two funds: a construction fund and a water fund. The proceeds from the bond sale go into the construction fund, and out of that fund go the payments for the construction for which the bond sale was authorized. All the gross revenues from operation fund payments are made according to priorities established in the bond covenant.

Payments for necessary operating expenses have the highest priority. The next priority is payments for debt service or principal and interest on the bonds. Lower down are payments for replacement and depreciation and finally a surplus account.

Bond purchasers need to be assured not only that funds won't be intermingled, but that there will be adequate funds available to pay debt service. Cities do at least two things to ensure debt service payments: 1) They agree to establish a reserve fund (In the case of the City of Bozeman, that fund is equal to debt service for one year); and 2) They agree to set rates that will yield net revenues (gross revenues minus operating expenses) of some agreed upon ratio to the average annual debt service cost. The agreements made by almost all Montana cities and towns call for collection of annual net revenues equal to at least 125% of annual debt service. In this case, the City of Bozeman asked the Commission to be allowed a "coverage ratio" of 150%; since this would mean higher rates than a coverage ratio of 125%, the City's supporting evidence must be thoroughly examined.

19. The City offered several reasons in support of its proposed 150% coverage ratio.

The City would be able to use the additional revenues to complete the present capital improvement project on a pay-as-you-go basis, without the expense of additional borrowing costs. After these capital improvements were completed, the City could use the extra revenue for recurring annual capital improvements.

A bond with a coverage ratio of 150% would be more marketable with today's high interest rate for municipal bonds and the Montana interest rate ceiling on revenue bonds.

The City might be able to sell a bond with a 150% coverage ratio at a lower rate of interest.

The City is presently in technical default of existing revenue bonds.

20. In spite of those reasons, the Commission finds the normal debt service coverage ratio of 125% would be more appropriate. The Commission's Finding is based on the following considerations:

a) Although a 150% debt service coverage ratio would allow the speedy completion of all capital improvements, the use of a 125% coverage ratio would only delay final completion of this phase of the construction projects only one year. Also, since the most pressing construction projects would be financed from bond sale proceeds, those projects could commence immediately in any case.

b) The evidence on marketability was quite speculative. Mr. Cook did not have any statistics on this question, and admitted that he knew of no Montana City that had encountered problems selling bonds with the 125% bond coverage ratio.

c) Similarly, little substantiation was offered for ; the lower interest rate. Mr. Cook, who has extensive experience in municipal finance, was unable to state with any degree of specificity what difference in the interest rate would result from a 150% coverage ratio nor why such a difference should result.

d) The technical default issue has more to do with the City's languor in waiting 22 years between rate increases than any need for a higher bond coverage ratio. It was stated in the record that due to the City's many financial needs, a rate increase request will have to be filed in 3-4 years. Th s will give the City the opportunity to insure that the 125% coverage ratio is met and prevent technical default.

e) The legislature this last session removed the interest ceiling on municipal revenue bonds (Ch. 500, Laws of 1981). In recognition of the fact that the City assumed the 9% interest rate ceiling in its calculations, and further recognizing that the Commission has found the City's capital improvement program to be reasonable and prudent, the commission will summarily approve a rate recalculation if an interest rate of higher than 9% is required. However, this rate recalculation may not exceed the level of rates originally sought in this Docket.

f) As for recurring annual capital improvements, it is the Commission's policy to tie any money for this to a schedule of contemplated system improvements. While the Commission fully supports the adequate funding of this type of account, not having a fund tied to needed improvements (with reasonable exceptions for inflation and emergencies) is bad management and bad regulation.

21. The Commission further finds that the issuance of \$4,800,000 in revenue bonds with a pay back period of 25 years is reasonably prudent and therefore accepts the issuance with the limitation that the debt service coverage ratio shall not be in excess of 125%.

D. OPERATION AND MAINTENANCE EXPENSE

22. The test year in this case is the fiscal year ending June 30, 1979 adjusted for an annual inflation rate of 7%. The Commission finds the test year adjusted for inflation to be a reasonable period within which to measure the expenses for the purpose of determining a fair and reasonable level of rates and accepts the City's projection that operating expenses will be \$394,200.

23. The City in this case has also requested approval of a future expense that will be incurred when the new water treatment plant is put into operation. The City has estimated that the new water treatment plant will cause an increase in operating expense n the amount of 569,800. The Commission finds that the City's estimated operating cost for the water treatment plant if reasonable but should not be included in determining the rates to be assessed until such time as the water treatment plant is in operation.

E. RATE STRUCTURE

24. The City presented a traditional cost of service study utilizing the base/extra-capacity method of allocating costs to the various classes of customers. As the aim is to have each class of customers pay the costs of providing them service, cost of items which are shared by all classes or customers, such as water treatment, pumping, and mains, must be allocated to the different classes of customers according to some formula. The base/extra-capacity method is one such formula of cost allocation.

25. The base/extra-capacity cost allocation method assumes that water systems have three types of costs; base costs, extra capacity costs, and customer costs. Customer costs are costs of meter reading, billing, etc., and may be assigned directly to the customers who cause them. Base costs are those that go to meet the average level of service needed, while extra-capacity costs recognize that a water system must be able to provide extra capacity since customers consumption rates are never a constant average. Once ail water system costs are allocated (as was done here by Mr. Thomas in Tables 4, 5, and 6) it must be determined which class is responsible for the costs. To decide cost responsibility, demand criteria are used. The three demand criteria are average annual consumption, maximum day demand, and maximum hour demand. These demand criteria describe the type of loads that each of class of customers puts on the system. If a customer class has relatively high average annual usage, it is responsible for relatively more base costs. If a customer class has relatively high maximum day and maximum hour demands, meaning that in its day or hour of highest usage, it uses relatively more

than average), it is responsible for more extra-capacity costs. By means of this matching of demand characteristics and allocated costs, the cost responsibility of each customer class is established.

26. The Commission in this case accepts the Applicant's costing formula with the reservation that the formula may tend to weight costs too heavily toward the system's extra-capacity costs.

27. The Applicant's proposed rate structure includes a minimum charge and declining rate blocks for all metered customers with the exception of Montana State University, where the City proposes to assess a fixed rate which would produce revenues equal to the University's allocated cost of service. The City also finds it necessary to perpetuate an unmetered rate structure because all services in the City of Bozeman are not metered.

28. The Applicant's proposed declining block rates are in conflict with efficient resource management and provide an incentive to increase consumption in lower priced tall blocks. To provide an incentive to increase consumption results in an inefficient allocation of the natural resource and often times results in it becoming necessary to increase plant capacity which results in higher rates to the consumer.

29. The Commission finds a superior rate structure to be one for all metered customers, except MSU, that has a minimum rate block of 500 cubic feet consumption incorporating the customer charge and the base cost for providing 500 cubic feet, and has a single block increment which will recover all extra-capacity costs and those base costs not recovered in the minimum charge. It is the Commission's opinion that those consumers utilizing 500 cubic feet or less are not contributing to the excess plant capacity necessary to provide peak delivery and therefore no extra-capacity costs should be recovered from those consumers.

30. The Commission accepts the filing of a fixed rate for MSU which is sufficient to recover the allocated cost of providing service to that customer. The Commission does want to point out that in this case the Applicant considered MSU as one customer even though there are 12 metered services to the customer. It is highly likely that wintertime residential use of water on the MSU campus is offset by summertime irrigation use of water yielding the final combined impression that MSU as a whole causes no seasonal strain on capacity. Since seasonal differences in use are an important consideration in the rate structure scheme submitted by the Applicant for the entire city, the various subcategories of use at the MSU campus should be priced in the

same manner. The Commission in the future will want to see the usage characteristics for each of the 12 connections at MSU to insure that those characteristics are consistent with the findings that considers MSU as one customer.

31. The Commission accepts the filing of unmetered rates by the City and recognizes that these consumers should contribute revenues in an amount equal to the allocated cost of service for this customer class. The Commission also recognizes that the increase for this customer class is the highest requested in this filing and therefore to promote conservation and possibly limit the cost impact to these consumers the Commission finds that the City shall upon request of the consumer install metered service.

32. The City also filed hydrant fees and municipal park irrigation rates. The Commission finds the filing of rates sufficient to cover costs as outlined in the filing is reasonable.

F. RULES AND REGULATIONS

33. The City in its application has requested authorization to amend certain rules and regulations under which the utility operates. The Commission's examination of the proposed rules changes indicates that the rules to be implemented are reasonable, however, the Commission makes no further finding in view of the fact the 1981 legislature passed legislation allowing municipal utilities to adopt service rules and regulations without this Commission's approval (see Chapter No. 607, Montana Session Laws 1981).

G. MISCELLANEOUS

34. In examining the information submitted in support of this proposed increase in rates the Commission noted that approximately 46% of the water utility's operation and maintenance expense is attributable to customer costs. It is the Commission's opinion, based upon broad exposure to various utilities' operation and maintenance expense, that the percentage attributable to customer costs is inordinately high and would recommend that the City examine the cost components in this account and determine if economies could be implemented to reduce the amount of this cost burden.

CONCLUSIONS OF LAW

The Montana Public Service Commission properly exercises jurisdiction over the parties and subject matter in this

proceeding.

2. The Commission afforded all interested parties notice of and an opportunity to participate in this proceeding.

3. The rates approved herein are just and reasonable.

ORDER

NOW THEREFORE, at a session of the Public Service Commission, Department of Public Service Regulation of the State of Montana, held in its offices at 1227 11th Avenue, Helena, Montana, on the 29th day of June, 1981, there being present a quorum of commissioners, there came regularly before the Commission for final action the matters and things in Docket No. 80.10.76, and the Commission being fully advised in the premises;

IT IS ORDERED by the Commission that the City of Bozeman initially file tariffs consistent with Finding of Fact No. 21, that will yield annual revenues adequate to cover the approved level of operating expenses of \$394,200.

IT IS FURTHER ORDERED that upon the sale of bonds, the City of Bozeman shall file tariffs which yield revenues sufficient to yield 125% debt service coverage at the then agreed upon rate of interest on the bonds. Further elucidation of this order may be found at Findings of Fact 12-20. IN NO EVENT, however, may the City file tariffs in excess of the rate levels originally proposed.

IT IS FURTHER ORDERED that upon completion of the City's new water treatment plant, it shall file tariffs yielding additional annual revenues of \$69,800 pursuant to Finding of Fact 22. IN NO EVENT, however, may the City file tariffs in excess of the rate levels originally proposed.

IT IS FURTHER ORDERED that the City of Bozeman shall file all rates consistent with the Rate Structure portion of this Order specifically Findings of Fact 28, 30, and 31.

IT IS FURTHER ORDERED that the City of Bozeman shall recalculate the factor applied to water billings for purposes of setting sewer charges, so that in the future the same amount of annual sewer revenues will result.

IT IS FURTHER ORDERED that a full, true and correct copy of this order be sent forthwith by first class United States mail to the applicant and to all other appearances herein.

THE FOREGOING ORDER was adopted by the Department of Public Service Regulation of the State of Montana, Public Service

Commission, . IN OPEN SESSION at Helena, Montana, this 29th day of June, 1981, by vote of 3 to 0 .

BY ORDER OF THE MONTANA PUBLIC SERVICE COMMISSION.

JOHN B. DRISCOLL, Commissioner

HOWARD L. ELLIS, Commissioner

THOMAS J. SCHNEIDER, Commissioner

ATTEST:

Madeline L. Cottrill
Commission Secretary

NOTE: You may be entitled to judicial review of the final decision in this matter. If no Motion for Reconsideration is filed, judicial review may be obtained by filing a petition for review within thirty (30) days from the service of this order. If a Motion for Re consideration is filed, a Commission order is final for purpose of appeal upon the entry of a ruling on that motion, or upon the passage of ten (10) days following the filing of that motion. cf. the Montana Administrative Procedure Act, esp. Sec. 2-4-702, MCA; and Commission Rules of Practice and Procedure, esp. 38.2.4806 ARM.